

AMENDMENTS TO THE SPECIFICATION:

Page 2:

Please substitute the following replacement paragraph for paragraph [0002]:

A switching power source is required to satisfy a low cost, miniaturization, high efficiency, a low voltage and a large current. Accordingly, as a switching element, an N-channel type power MOSFET (hereinafter abbreviated as NMOS) which is manufactured at a low cost and exhibits the low ON-resistance (low  $R_{on}$ ) and the low  $Q_{gd}$  (low gate charge quantity) is used in many cases. ~~Fig. 12~~ Fig. 13 shows the constitution of a step-down type switching power source which is studied prior to the present invention. In using the NMOS in a high potential-side switching element M1, a booster circuit which is referred to as "bootstrap" and a level shifting circuit shown in the drawing are necessary. In the booster circuit shown in Fig. 13, a voltage ( $V_{DD}-V_f$ ) which is lower than a power source voltage  $V_{DD}$  by an amount corresponding to a forward voltage  $V_f$  of a diode D4 is supplied for driving high-potential side switching element M1. That is, the voltage which is higher than a source (middle point LX) of the switching element M1 by the voltage ( $V_{DD}-V_f$ ) stored in the bootstrap CB is supplied to a gate of the switching element M1. To increase the above-mentioned

voltage ( $V_{DD}-V_f$ ), a Schottky barrier diode which exhibits a low forward voltage  $V_f$  is used as a diode D4.

Page 5:

Please add the following paragraphs after paragraph [0008], before the heading "Best Mode for Carrying out the Invention":

#### Brief Explanation of Drawings

Fig. 1 is a schematic circuit diagram showing one embodiment of a switching power source according to the present invention.

Fig. 2 is a waveform diagram for explaining an operation of a driving circuit of the switching power source shown in Fig. 1.

Fig. 3 is a schematic cross-sectional view of an element showing one embodiment of a P-channel MOSFET M3 shown in Fig. 1.

Fig. 4 is a constitutional view showing one embodiment of the switching power source according to the present invention.

Fig. 5 is a constitutional view showing another embodiment of the switching power source according to the present invention.

Fig. 6 is a constitutional view showing still another embodiment of the switching power source according to the present invention.

Fig. 7 is a schematic circuit diagram showing another embodiment of the switching power source according to the present invention.

Fig. 8 is a constitutional view showing still another embodiment of the switching power source according to the present invention.

Fig. 9 is a circuit diagram showing one embodiment of a voltage clamping circuit VCL shown in Fig. 8.

Fig. 10 is a circuit diagram showing one embodiment of a level shifting circuit LS2 used in the switching power source according to the present invention.

Fig. 11 is a schematic circuit diagram showing still another embodiment of the switching power source according to the present invention.

Fig. 12 is a constitutional view showing still another embodiment of the switching power source according to the present invention.

Fig. 13 is a constitutional view of a step-down type switching power source which is studied prior to the present invention.

Fig. 14 is a view showing operational waveforms of respective parts of the step-down type switching power source shown in Fig. 13.

Pages 33-35:

Please delete the heading and paragraphs constituting the section entitled "Brief Explanation of Drawings" at page 33, line 21 through page 35, line 13.